

REMARKS/ARGUMENTS

Favorable reconsideration of this application in view of the above amendments and following remarks is respectfully requested.

Claims 25-36 and 38-48 are pending in this application. By this amendment, Claims 25, 33, 38 and 47 are amended; Claim 37 is cancelled; and no claims are added herewith. It is respectfully submitted that no new matter is added by this amendment.

In the outstanding Office Action Claims 25-29, 31-38, 43-46 and 48 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. 2002/0079826 to Park; and Claims 30, 39, 40, 41-42 and 47 were rejected under 35 U.S.C. § 103(a) as unpatentable over Park in view of U.S. Patent No. 4,983,881 to Eliasson.

Turning now to the merits, in order to expedite issuance of a patent in this case, Applicants have amended the independent claims to clarify patentable distinctions of the present invention over the cited references. Specifically, Applicants have similarly amended Claims 25 and 47 to recite at least two glass substrates defining an internal gas-filled space, each glass substrate having an internal surface facing in a direction of the internal space and an external surface facing in a direction away from the internal space, and two electrodes, a first of the two electrodes associated with a first one of the glass substrates and a second of the two electrodes associated with a second one of the glass substrates, the two electrodes being away from the internal surface, at least one of the first and second electrodes is located on the external surface side of the respective substrate and at least one of the electrodes covers all of the external face of the respective glass substrate, as recited in Claim 25 and similarly recited in Claim 47.

Instead, Park discusses a flat luminescent lamp having a first and second substrate 31, 31a facing each other and forming an internal discharge region. First and second electrodes 33, 33a are buried in substrate grooves facing the internal discharge region. As discussed in

[0048] of Park, upper surfaces of the first and second electrodes 33, 33a have the same vertical level as the surfaces of the first and second substrates 31, 31a. As discussed in [0055-0059] with respect to Figs. 4A-4E, the grooves 100 are formed by etching the first and second substrates 31 and 31a. The electrode layer 32 is formed on the entire surfaces of the substrates 31 and 31a including grooves 100. As shown in FIG. 4C, the surfaces of the first and second substrates 31 and 31a are flatted by a CMP process. Accordingly, the electrode layer 32 is buried in the grooves 100 formed in the first and second substrates 31 and 31a, so that the first and second electrodes 33 and 33a are formed therein. After the electrodes 33 and 33a are formed on the substrates 31 and 31a, as shown in FIG. 4D, the first and second dielectric layers 35 and 35a are formed on the respective substrates including the first and second electrodes 33 and 33a. As such, the electrodes 33, 33a are provided only in the grooves and are formed to face the internal space not away from the internal space.

The Office Action acknowledges that Park does not teach or suggest the specific location of the two electrodes with respect to the substrates. However, the Office Action asserts that the claimed features do not solve any of the stated problems or yield any unexpected results. Contrary to the Office Actions assertions, as discussed on at least page 4 of the present specification, Applicants have recognized advantageous results achieved where the electrodes are placed outside of the enclosure containing the plasma gas at reduced pressure, which allows the manufacturing cost of the lamp to be lowered with superior illumination characteristics provided well suited to the use as a luminaire. Even further, the glass substrate acts as capacitive protection for the electrodes against ion bombardment. The cited references do not recognize the advantageous results achieved by the present invention, thus further demonstrating the non-obviousness of the present claims.

Additionally, having the at least one of the first and second electrodes located on the external surface side of the respective substrate and at least one of the electrodes covers all of

the external face of the respective glass substrate as claimed, the problem of connection to the power supply is solved much more simply than in the case of the known systems in which the electrical connectors must pass through the hermetically sealed enclosure containing the gas. Further, the continuous and the uniform coatings forming the electrodes may be manufactured on large substrates by methods of very high productivity.

Additionally, the applied art does not teach or suggest that the electrical insulation associated with the electrode is assembled with one or more other additional electrical insulations, as recited in Claim 29. Park merely discusses first and second electrodes 33, 33a buried in the grooves of substrates 31a, 31 and facing the internal discharge region. Advantageously, in accordance with the features of the claimed invention, joining one or more electrical insulations to the glass substrate(s) of the lamp makes it possible, apart from protecting the electrodes, to produce decorative or illuminating objects incorporating decorative plates that present flat decorations, for example photographs, screen printing, and enameled decorations.

Additionally, the applied art does not teach or suggest that a lateral surface of the spacers is coated with a phosphor material, as recited in Claim 42. For example, Eliasson merely discusses in col. 3, lines 4-10, that the quartz panel 1 and metal panel 2 are separated from each other by spacers 3 of insulating material. The applied art does not teach or suggest the claimed feature. In accordance with this feature of the claimed invention, the loss of light by absorption in the material of the spacers is prevented.

Park and Eliasson are not directed to the problems addressed by the present invention, and would not suggest modification of Park with Eliasson to arrive at the combined features of the present invention. Accordingly, the features of the claimed invention are not taught or suggested by the applied art and therefore, the applied art cannot provide at least the

advantages discussed above. Withdrawal of the rejection of the claims under 35 U.S.C. § 103 is respectfully requested.

Consequently, for the reasons discussed in detail above, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal allowance. Therefore, a Notice of Allowance is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact the undersigned representative at the below-listed telephone number.

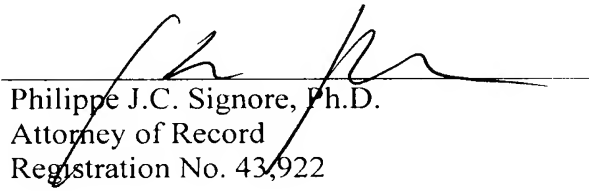
Respectfully submitted,

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